

REMARKS

The Examiner is thanked for the thorough examination of the present application. The Office Action, however, tentatively rejected all claims 1-22. Applicant respectfully requests reconsideration and withdrawal of these rejections for at least the following reasons. Applicant respectfully requests reconsideration and withdrawal of the rejections for at least the reasons set forth herein.

Claim Objections

The Office Action objected to claims 1-20, because of certain noted informalities in claims 1, 4, and 17. Applicant has amended claims 1, 4, and 17 to address and accommodate these noted informalities. Accordingly, Applicant submits that these objections should be withdrawn.

Claim Rejections Under 35 U.S.C. §112, Second Paragraph

The Office Action rejected claims 2, 7, and 18 under 35 U.S.C. § 112, second paragraph, as allegedly indefinite, because of the multiple use of the word “information” Applicant has amended claims 2, 7, and 18 to address and overcome this rejection. With regard to the amendment of claim 7, Applicant notes that the term “information” as used in that claim was not intended to be any of the types of information recited in claim 1. Instead, it is referring to information about the network topology or configuration. Accordingly, the amendment to claim 7 merely adds the identifier of “network” preceding the term “information” to clarify this point. Support for this amendment is provided in the original application, in at least paragraph 0029 (on p. 9). Accordingly, the amendment adds no new matter to the application.

Discussion of Substantive Rejections

The Office Action rejected claims 1-4, 7-9, 12, 17-18, and 21 under 35 U.S.C. § 103(a) as allegedly unpatentable over the combination of Dittia (US 6,826,186) to Perlman (US 5,243,592). Applicant respectfully requests reconsideration and withdrawal of this rejection for at least the reasons that follow.

Each of the independent claims includes at least one common distinguishing feature. Specifically, independent claims 1, 17, and 21 respectively recite:

1. In a multi-node network comprising a plurality of distributed switching nodes, a method implemented in at least one of the plurality of distributed switching nodes for routing information entering the at least one of the plurality of distributed switching nodes over a first channel to one of a plurality of other channels, the method comprising:

obtaining priority information for the information;

ascertaining a remaining communication length for the information for each of the plurality of other channels;

determining a current demand for each of the plurality of other channels; and

routing the information entering at the first channel to one of the plurality of other channels ***based upon an evaluation that considers a combination of the obtained priority information, the ascertained communication length for each of the plurality of other channels, and the current demand for each of the plurality of other channels.***

17. In a multi-node network comprising a plurality of distributed switching nodes, a method implemented in at least one of the plurality of distributed switching nodes for routing information out of the at least one of the plurality of distributed switching nodes over a first channel from one of a plurality of other channels, the method comprising:

obtaining priority information for the information entering the node for each of the plurality of other channels;

ascertaining a remaining communication length for the information entering the node for each of the plurality of other channels;

determining a current demand of the first channel; and

routing the information entering at one of the other channels to the first channel ***based upon an evaluation that considers a combination of the obtained priority information for each of the plurality of other channels, the ascertained communication length for each of the plurality of other channels, and the current demand for the first channel.***

21. A node for routing information entering the node over a first channel to one of a plurality of other channels in a multi-node network comprising a plurality of distributed switching nodes, the node comprising:

logic configured to obtain priority information for the information;

logic configured to ascertain a remaining communication length for the information for each of the plurality of other channels;

logic configured to determine a current demand for each of the plurality of other channels; and

logic configured to route the information entering at the first channel to one of the other channels based upon an evaluation that considers a combination of the obtained priority information, the ascertained communication length for each of the plurality of other channels, and the current demand for each of the plurality of other channels.

(*Emphasis added.*) Claims 1, 17, and 21 patently define over the cited art for at least the reason that the cited art fails to disclose the features emphasized above.

The Office Action has cited col. 9, line 61 through col. 10, line 2 of Dittia as allegedly teaching the “routing information” and “logic configured to route” features emphasized above (see pp. 4 and 10 of the Office Action). In this regard, the cited portion of the Dittia reference states:

... Element 320 represents a buffer or queue which can optionally be partitioned into multiple buffers or queues 321-329 corresponding to different destinations, types or priorities for the data. In one embodiment, ***control logic 310, which may include one or more data structures, uses the destination of the data packets and/or lengths of the individual buffers or queues 321-329 in determining over which path or interconnection element the data should be routed.*** Control logic 310 informs router 315 the path or interconnection element over which to route the data or which buffer or queue 321-329 to place the data. Router 315 then places the data into the appropriate buffer or queue 321-329, or transmits the data to or over the appropriate interconnection device.

According to this cited portion of Dittia, the control logic uses the destination of the data packets and/or lengths of the individual buffers or queues in determining the path over which the data should be routed.

First, there is no mention in the cited portion of Dittia of the use of priority data in determining which path the data should be routed over. In addition, there is no mention in the cited portion of Dittia as to the use of demand information in determining which path the data should be routed over. For at least these reasons, the rejection should be withdrawn.

As a separate and independent basis for the patentability of each of the independent claims, Applicant submits that the cited art also fails to disclose the claimed ***logic configured to obtain priority information*** or the claimed operation of ***obtaining priority information***. The Office Action cites col. 6, lines 8-19 of Dittia as allegedly disclosing this feature. Applicant respectfully disagrees. In this regard, this portion of Dittia states:

... In one embodiment, the switching system supports a plurality of types of services; the data structure includes a set of indicators to indicate for each type of service for each destination which of the plurality of interconnection elements were selected to receive, or remain available to receive one or more of the packets in a current distribution cycle defined for each destination and type of service; wherein a particular interconnection element is only selected a predetermined number of times in the current cycle for a particular type of service.

As can be readily verified from the above-quoted portion of Dittia, there is no disclose of obtaining priority information for the information (to be routed) entering the node. Consequently, for this independent reason, the rejection of claims 1, 17, and 21 should be withdrawn.

As yet another separate and independent basis for patentability, the Office Action admits that Dittia fails to disclose the claimed feature of ascertaining a remaining communication length. Instead, the Office Action alleges that Perlman teaches this feature at col. 5, line 55 through col. 6, line 1, and that it would have been obvious to combine Perlman with Dittia. Applicant respectfully disagrees.

In this regard, even assuming (*arguendo*) that Perlman indeed teaches this claimed distance information, there is no proper teaching or suggestion that this attribute would be combined along with the priority information and demand to determine the path for routing the information. For at least this additional reason, the rejection of independent claims 1, 17, and 21 should be withdrawn.

As all remaining claims depend from either claim 1, claim 17, or claim 21, then all outstanding rejections should be withdrawn for at least the foregoing reasons.

CONCLUSION

Applicant respectfully submits that all claims are in proper condition for allowance, and respectfully request that the Examiner pass this case to issuance. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

No fee is believed to be due in connection with this Response to Office Action. If, however, any fee is deemed to be payable, you are hereby authorized to charge any such fee to Hewlett-Packard Company's Deposit Account No. 08-2025.

Respectfully submitted,

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Please continue to send all future correspondence to:

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